communicating a selected status read command by said host processor to said subsystem instructing said subsystem to self-monitor predetermined component status and to send component status upon said subsystem detecting a change in said status;

terminating said communications link; and

monitoring, by said subsystem, said predetermined component status and when any one of said component status changes by a predetermined amount: (i) reestablishing said communications link with said host processor, and (ii) communicating said changed status to said host processor.

2.   (Unchanged) The method in Claim 1, wherein said first processor comprises a host adapter, said subsystem comprises a SAF-TE enclosure, and said component comprises a SAF-TE Processor (SEP) device.

3.   (Unchanged) The method in Claim 2, wherein said status is selected from the group consisting of a device status, a component status, a slot status, and combinations thereof.

4.   (Unchanged) The method in Claim 1, wherein said subsystem comprises a second processor and said status is communicated between said first processor and said second processor.

5.   (Unchanged) The method in Claim 2, wherein said communication link comprises a Small Computer System Interface (SCSI) communication bus supporting SCSI commands and protocol.

6.   (Unchanged) A method for monitoring a status change in a SCSI Accessed Fault-Tolerant Enclosure (SAF-TE) target device, the method comprising the steps of:

issuing, by a host adapter coupled to said SAF-TE by a SCSI bus, a single command sequence which includes a request for a status report for said target device only when a predefined minimum change has occurred in the status of said target device;

logically disconnecting said SAF-TE controlling said target device from said bus after receipt of said command; and

logically reconnecting said SAF-TE to said SCSI bus only when said predefined minimum change has occurred and communicating a response including said changed status to said host adapter.

7. (Unchanged) The method in Claim 6, wherein said target device comprises a SAF-TE slot and said status change comprises a change in status of a SAF-TE slot.

8. (Unchanged) The method in Claim 6, wherein said target device comprises a SAF-TE component and said status change comprises a change in status of a SAF-TE component.

9. (Unchanged) The method in Claim 6, wherein said target device comprises a SAF-TE component disk drive and said status change comprises a change in status of a SAF-TE disk drive.

10. (Unchanged) The method in Claim 6, wherein said single command sequence comprises a single fixed sequence of commands that is issued to solicit a future change in status from a target device without periodic polling of said target device or of an enclosure containing said target device.

11. (Unchanged) The method in Claim 6, wherein said command sequence includes a command sent by a requestor to retrieve a target device status when said target device has a status change, and said command allows disconnection from a communication link coupling said requestor to said target device after said command has been received and reconnection to said communication link after said status has changed so that said changed status may be communicated to said requestor.

12. (Unchanged) The method in Claim 11, wherein said communication link comprises a computer bus.

13. (Unchanged) The method in Claim 11, wherein said communication link comprises a SCSI bus.

14. (Unchanged) The method in Claim 11, wherein said requestor includes a host adapter coupled to a host computer.

15.   (Unchanged) The method in Claim 6, wherein said response from a target device is generated only when a status value change of a predetermined amount occurs relative to a reference status value.

16.   (Unchanged) The method in Claim 15, wherein said predetermined amount is any amount of change.

17.   (Unchanged) The method in Claim 15, wherein said predetermined amount is a percentage change compared to a previous value.

18.   (Unchanged) The method in Claim 15, wherein said predetermined amount comprises a status value that exceeds a predetermined threshold value.

19.   (Unchanged) The method in Claim 15, wherein said predetermined amount is specified programmatically.

20.   (Unchanged) The method in Claim 6, wherein said status returned in response to said command send by said requestor to retrieve a target device status when said target device has a status change has the same status information format and field definition as for status returned in response to a conventional polled status command.

21.   (Unchanged) The method in Claim 20, wherein said polled status command is selected from the group consisting of a Write Device Slot Status command, a Read Device Slot Status command, and a read enclosure status command.

22.   (Unchanged) The method in Claim 6, wherein said command sequence includes at least one command having an associated tag and said command is issued with said associated tag as a tagged command; and said method further comprising the step of issuing a first tagged command and subsequently issuing a second tagged command before said first tagged command completes execution.

23.   (Unchanged) The method in Claim 6, wherein said command sequence may be issued at any arbitrary time so that a response to said command is generated upon the detection of a change in status of the target device.

24.   (Unchanged) The method in Claim 6, wherein said SAF-TE processor (SEP) device monitors the status of each component without being interrupted by host adapter periodic SAF-TE status polling so that overhead in each of said host adapter and said SEP is reduced and additional processing bandwidth is available in said host adapter and said SEP to perform other operations.

25.   (Unchanged) The method in Claim 6, wherein said command sequence includes a command having a command parameter setting a timer response time, said command causing generation of a response upon the expiration of said timer response time.

26.   (Unchanged) The method in Claim 25, wherein when said timer response time expires, status being generated and communicated to a status requestor.

27.   (Unchanged) The method in Claim 25, wherein when said timer response time expires, status being generated and communicated to a status requestor without disrupting a pending read changed status request command which generates a status only upon the occurrence of a reportable change.

28.   (Unchanged) The method in Claim 6, wherein a plurality of status command sequences have been issued prior to receiving a response to change status; and said method further comprising the step of: aborting other outstanding status commands when a changed status is reported and thereby allowing response only to a new change status command.

29.   (Unchanged) The method in Claim 6, wherein said commands may be communicated to multiple target devices on the same communication link.

30.   (Unchanged) The method in Claim 6, wherein said change status and polling commands co-exist on a single system.

31. (Unchanged) The method in Claim 6, wherein said change status and polling commands co-exist on a single bus.

32. (Unchanged) A method for determining if a target device supports a change status command, said method comprising steps of:

selecting, by a host adapter, a particular selected target device;

sending, by said host adapter, an inquiry command to said selected target device;

sending, by said selected target device, the requested inquiry data to said host adapter and receiving said inquiry data by said host adapter;

determining if a flag in said inquiry data is a first predetermined logic state; and

enabling said device for change status commands only if said flag has said first predetermined logic state and enabling said device for polled status commands if said flag does not have said first predetermined logic state.

33. (Unchanged) The method in Claim 32, wherein said flag comprises a command queue flag of said inquiry data.

34. (Unchanged) The method in Claim 32, wherein said polled status commands are selected from the group consisting of a Write Device Slot Status command, a Read Device Slot Status command, and Read Enclosure Status command.

35. (Unchanged) The method in Claim 32, wherein said change status commands are selected from the group consisting of a Read Device Slot Changed Status command, a Read Enclosure Changed Status command, a Read Device Slot Changed Status with Timeout command, a Read Enclosure Changed Status with Timeout command, and combinations thereof.

36. (Unchanged) The method in Claim 32, wherein the command queue flag state is established for a particular target device prior to issuing the inquiry command.

37. (Unchanged) A method for reading a changed status for a target device, said method comprising steps of:

issuing a change status command by a host adapter;

generating a pointer to a location in memory that will be used when the enclosure or slot status data is transferred from target device;

creating a tag for the command;

selecting a particular target device, said selection of the target device resulting in the establishment of a connection between said host adapter and said target device;

sending a tag by said host adapter to said selected target device giving it disconnect privilege when a command is received;

sending a command to the target device, where the command may optionally include a non-zero timer timeout;

waiting, by the host adapter, for the target device to disconnect, and once disconnected continuing other activities scheduled for other devices;

receiving the tag and the command by the target device, and for commands issued without a timeout, gathering current status from the enclosure components and comparing the freshly gathered current status with the prior stored status;

monitoring, by said host adapter, for any target device request for reconnection;

if there has been no reportable change in status then the target device continues to gather status and monitor status changes until the comparison indicates there has been a reportable change in status;

when a reportable change in status is identified, the target device reconnects to the host adapter, and returns the tag and the current enclosure status to the host adapter;

reconnection of the target device with said host adapter;

sending the status from the target device and the host adapter receiving the tag returned by the target device with the status; and

retrieving said memory pointer associated with said received tag and storing the target device status data into memory at that memory location.

38.   (Unchanged) The method in Claim 37, wherein said target device comprises a SAF-TE Processor (SEP) device.

39. (Amended) The method in Claim 37, wherein said changed status is <u>a status selected from the group of status consisting of</u> a device slot change status, an enclosure change status, an enclosure change status, a slot change status with timeout, and an enclosure change status with timeout.

40. (Unchanged) The method in Claim 37, wherein when the optional non-zero timer timeout parameters are specified in the command said method further comprising steps of:

after receiving the command from the host adapter, determining whether the command specifies a timeout parameter;

if a timeout parameter is specified, then performing, by the SEP, incrementing or decrementing a timer count and when the timer count value reaches a predetermined counter value, gathering the required status and reconnecting to the host adapter; and

returning status and tag to the host adapter.

Add claims 41 - 53 as follows:

--41. (New) A computer program product for use in conjunction with a computer system, the computer program product comprising a computer readable storage medium and a computer program mechanism embedded therein, the computer program mechanism, comprising:

a program module that directs the computer system or components thereof, to function in a specified manner to determine if a target device supports a change status type command and to enable said device for said change status type command when said target device supports such command, the program module including instructions for:

selecting a particular selected target device;

sending an inquiry command to said selected target device;

receiving inquiry data in response to said inquiry command from said target device;

determining if an indicator in said inquiry data is a first predetermined state; and

enabling said device for change status commands only if said indicator has said first predetermined state and not enabling said device for said change status commands if said flag does not have said first predetermined state.

42.   (New) The computer program product in claim 41, wherein when said device is not enabled for change status commands when said indicator does not have said first predetermined state, enabling said device for polled status commands if said flag does not have said first predetermined state.

43.   (New) The computer program product in claim 41, wherein said indicator comprises a command queue flag of said inquiry data.

44.   (New) The computer program product in claim 42, wherein said polled status commands are selected from the group consisting of a write device slot status command, a read device slot status command, and read enclosure status command.

45.   (New) The computer program product in claim 42, wherein said change status commands are selected from the group consisting of a read device slot changed status command, a read enclosure changed status command, a read device slot changed status with timeout command, a read enclosure changed status with timeout command, and combinations thereof.

46.   (New) The method in Claim 43, wherein the command queue flag state is established for a particular target device prior to issuing the inquiry command.

47.   (New) A computer program product for use in conjunction with a computer system, the computer program product comprising a computer readable storage medium and a computer program mechanism embedded therein, the computer program mechanism, comprising:

   a program module that directs the computer system or components thereof, to function in a specified manner to read a changed status for a target device, the program module including instructions for:

   issuing a change status command by a host adapter;

   generating a pointer to a location in memory for used when status data is transferred from said target device;

   creating a tag for said change status command;

selecting a particular target device and establishing a communication connection between said host adapter and said selected target device;

sending said tag to said selected target device giving it disconnect privilege when a command is received;

sending a command to the target device, said command optionally including a non-zero timer timeout;

waiting for said target device to disconnect, and once disconnected, continuing other activities scheduled for other devices;

receiving the tag and the command by the target device, and for commands issued without a timeout, gathering current status and comparing the gathered current status with stored status from an earlier status gathering to identify a reportable status change;

monitoring for any target device request for reconnection;

if there has been no reportable change in status then the target device continuing to gather status and monitor status changes until said comparison identifies a reportable change in status;

when a reportable change in status is identified, said target device reconnecting to the host adapter, and returning the tag and the current status to the host adapter;

reconnecting said target device with said host adapter;

sending said status from the target device and receiving the tag returned by the target device with the status; and

retrieving said memory pointer associated with said received tag and storing the target device status data into memory at that memory location.

48.   (New) The computer program product in Claim 47, wherein said target device comprises a SAF-TE processor (SEP) device.

49.   (New) The computer program product in Claim 47, wherein said changed status is a status selected from the group consisting of: a device slot change status, an enclosure change status, an enclosure change status, a slot change status with timeout, and an enclosure change status with timeout.

50.   (New) The computer program product in Claim 47, wherein when the optional non-zero timer timeout parameters are specified in the command, and said program module further including instructions for:

determining whether the command specifies a timeout parameter after receiving the command from the host adapter;

if a timeout parameter is specified, then performing, by the SEP, incrementing or decrementing a timer count and when the timer count value reaches a predetermined counter value, gathering the required status and reconnecting to the host adapter; and

returning status and tag to the host adapter.

51.   (New) A host adapter comprising:

a target device selector for selecting a particular selected target device;

inquiry command generation means for generating an inquiry command;

a communication port for communicating said inquiry command to said selected target device and for receiving inquiry data from said target device in response to said inquiry command;

comparison logic for determining if said inquiry data includes an indicator indicating that said target device supports a change status command type; and

enabling logic for enabling said target device for change status commands only if said indicator is present and indicates that said target device supports said change status commands, and enabling said device for polled status commands if said flag does not so indicate.

52.   (New) The host adapter in Claim 51, wherein said indicator comprises a command queue flag of said inquiry data.

53.   (New) The host adapter in Claim 51, wherein said target device comprises a SAF-TE processor (SEP) device.--

REMARKS

Applicant respectfully requests entry of the proposed amendments. No new matter has been added. The Commissioner is hereby authorized to charge any additional fees including